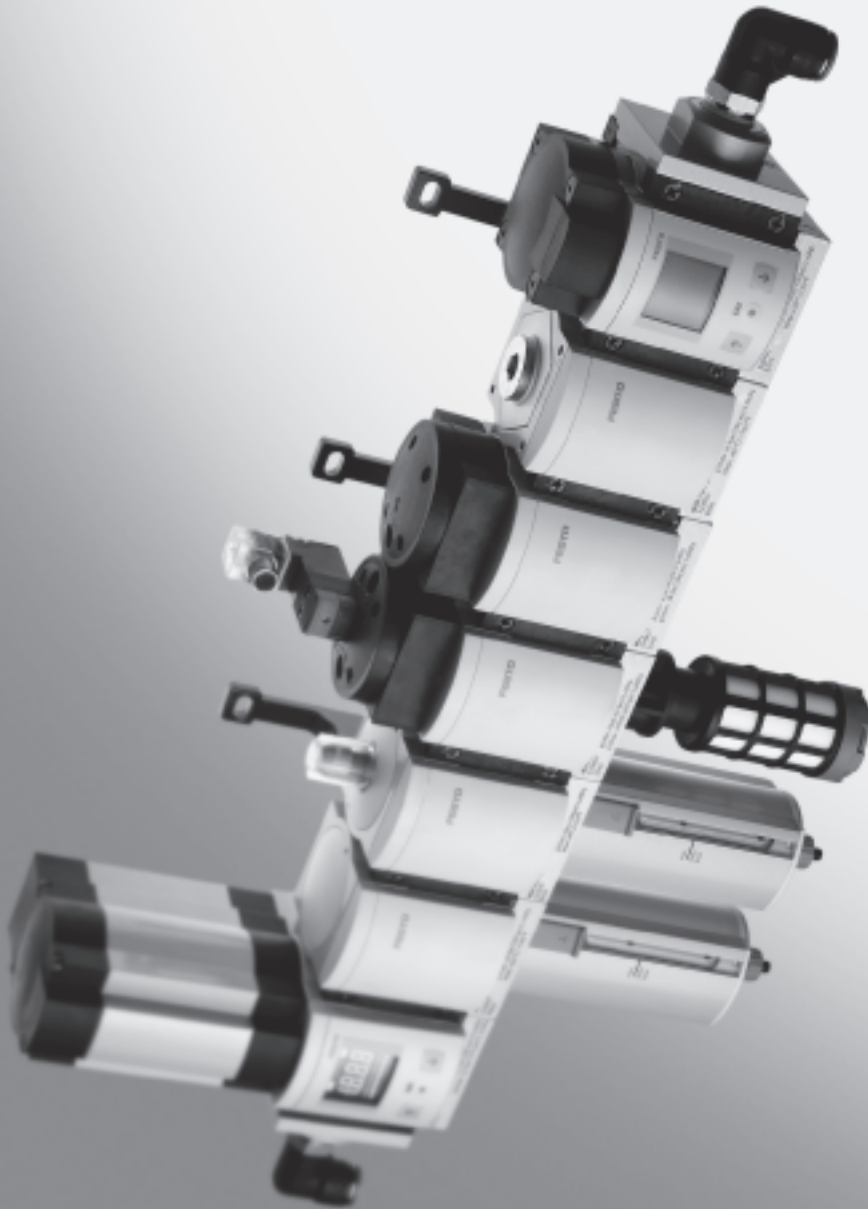


Wide range of configuration options

→ [www.festo.com/en/engineering](http://www.festo.com/en/engineering)



- Easy to assemble thanks to a modular structure
- Three sizes:
  - MS4 – grid dimension 40 mm
  - MS6 – grid dimension 62 mm
  - MS12 – grid dimension 124 mm
- 8 connection sizes: G<sup>1</sup>/<sub>8</sub> to G2
- Modern design
- Compact with high flow rates: up to 22,000 l/min with size MS12
- Integrated safety functions
- Broad range of functions: Individual components, preassembled combinations ex-stock, application-specific combinations or complete turnkey solutions

Specified types in accordance with ATEX directive for potentially explosive atmospheres

→ [www.festo.com/en/ex](http://www.festo.com/en/ex)

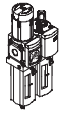
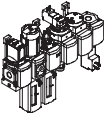








# MS series service units

Product range overview



MS series service units

1

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]						Grade of filtration [µm]			
				0.05	0.05	0.1	0.3	0.1	0.5	0.01	1	5	40
				...	...	...	...	...	...				
Code			AG...	D2	D4	D5	D6	D7	D8	A	B	C	E
<b>Service units</b>													
<b>MSB-FRC</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	■	■	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	■	■	-	-	-	■	■
	12	-											
<b>Service unit combinations (further variants can be ordered using the configurator → <a href="http://www.festo.com/en/engineering">www.festo.com/en/engineering</a>)</b>													
<b>MSB</b> 	4	G1/4	G1/8, G1/4, G3/8	-	-	-	■	■	-	-	-	■	■
	6	G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	■	■	-	-	-	■	■
	12	-											
<b>Individual devices</b>													
Filter regulators <b>MS-LFR</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	■	■
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	■	■	■	-	-	■	■
Filters <b>MS-LF</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	■	■
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	■	■
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	■	■
Fine and micro filters <b>MS-LFM</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	■	■	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	■	■	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	■	■	-	-
Active carbon filter <b>MS-LFX</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-	-	-
Pressure regulators <b>MS-LR</b> 	4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	-	-
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	-	-
	12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	■	■	■	-	-	-	-
Pressure regulators <b>MS-LRB</b> 	4	G1/4	G1/8, G1/4, G3/8	-	-	■	■	■	-	-	-	-	-
	6	G1/2	G1/4, G3/8, G1/2, G3/4	-	-	■	■	■	■	-	-	-	-
	12	-											
Precision pressure regulators <b>MS-LRP</b> 	4	-											
	6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	-	■	-	-	-	-	-
	12	-											
Precision pressure regulators <b>MS-LRPB</b> 	4	-											
	6	G1/2	G1/4, G3/8, G1/2, G3/4	■	■	■	-	■	-	-	-	-	-
	12	-											

# MS series service units

Product range overview



Type	Size	Bowl guard		Condensate drain				Pressure display				Actuator lock		Options		→Page	
		Plastic bowl guard	Metal bowl	Manual rotary	Semi-automatic	Fully automatic	External, fully automatic, electrical	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G 1/8	Adapter plate for EN pressure gauge G 1/4	Pressure sensor with display	Rotary knob, lockable	Rotary knob, long	Silencer		Flow direction from right to left
Code		R	U	M	H	V	E...	VS	AG	A8	A4	AD...	AS	LD	S	Z	
<b>Service units</b>																	
MSB-FRC	4	■	-	■	-	■	-	-	■	-	-	-	■	-	-	■	2-2
	6	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Service unit combinations</b>																	
MSB	4	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	2-2
	6	■	■	■	-	■	-	-	■	-	-	-	■	-	-	■	
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Individual devices</b>																	
Filter regulators MS-LFR	4	■	■	■	■	■	-	■	■	■	■	■	■	■	-	■	3-2
	6	■	■	■	■	■	■	■	■	-	■	■	■	■	-	■	
	12	-	■	■	-	■	■	■	■	-	■	-	■	■	-	■	3-18
Filters MS-LF	4	■	■	■	■	■	-	-	-	-	-	-	-	-	-	■	4-2, 4-4
	6	■	■	■	■	■	■	-	-	-	-	-	-	-	-	■	
	12	-	■	■	-	■	■	-	-	-	-	-	-	-	-	■	4-32, 4-34
Fine and micro filters MS-LFM	4	■	■	■	■	■	-	-	-	-	-	-	-	-	-	■	4-2, 4-12
	6	■	■	■	■	■	■	-	-	-	-	-	-	-	-	■	4-32, 4-39
	12	-	■	■	-	■	■	-	-	-	-	-	-	-	-	■	
Active carbon filter MS-LFX	4	■	■	-	-	-	-	-	-	-	-	-	-	-	-	■	4-2, 4-24
	6	■	■	-	-	-	-	-	-	-	-	-	-	-	-	■	
	12	-	■	-	-	-	-	-	-	-	-	-	-	-	-	■	4-32, 4-46
Pressure regulators MS-LR	4	-	-	-	-	-	-	■	■	■	■	■	■	■	-	■	5-2
	6	-	-	-	-	-	-	■	■	-	■	■	■	■	-	■	
	12	-	-	-	-	-	-	■	■	-	■	-	■	■	-	■	5-66
Pressure regulators MS-LRB	4	-	-	-	-	-	-	■	■	■	■	■	■	■	-	■	5-14
	6	-	-	-	-	-	-	■	■	-	■	■	■	■	-	■	
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Precision pressure regulators MS-LRP	4	-	-	-	-	-	-	■	-	■	■	■	■	■	-	■	5-26
	6	-	-	-	-	-	-	■	-	■	■	■	■	■	-	■	
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Precision pressure regulators MS-LRPB	4	-	-	-	-	-	-	■	-	■	■	■	■	■	-	■	5-40
	6	-	-	-	-	-	-	■	-	■	■	■	■	■	-	■	
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

# MS series service units

Product range overview



MS series service units

1

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]				Supply voltage				
				0.3	0.3	0.5	0.5	24 V DC, connection pattern to EN 175301	24 V DC, connection pattern M12 to DESINA	110 V AC, connection pattern to EN 175301	230 V AC, connection pattern to EN 175301	
Code			AG...	D5	D6	D7	D8	V24	V24P	V110	V230	
<b>Individual devices</b>												
Electrical pressure regulators <b>MS-LRE</b>		4	–									
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	■	■	■	■	–	–	–	–
		12	–									
Lubricator <b>MS-LOE</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–	–
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	–	–	–	–
Manual on-off valves <b>MS-EM(1)</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–	–
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	–	–	–	–
Electrical on-off valves <b>MS-EE</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	■	–	■	■
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	■	–	■	■
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	■	■	■	■
Pneumatic soft-start valves <b>MS-DL</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–	–
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	–	–	–	–
Electrical soft-start valves <b>MS-DE</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	■	–	■	■
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	■	–	■	■
		12	–	G1, G1 $\frac{1}{4}$ , G1 $\frac{1}{2}$ , G2	–	–	–	–	■	■	■	■
Soft start and exhaust valves <b>MS-SV</b>		4	–									
		6	G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	■	–	–	–
		12	–									
Membrane air dryers <b>MS-LDM1</b>		4	G $\frac{1}{8}$ , G $\frac{1}{4}$	G $\frac{1}{8}$ , G $\frac{1}{4}$ , G $\frac{3}{8}$	–	–	–	–	–	–	–	–
		6	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$	G $\frac{1}{4}$ , G $\frac{3}{8}$ , G $\frac{1}{2}$ , G $\frac{3}{4}$	–	–	–	–	–	–	–	–
		12	–									

# MS series service units

Product range overview



Type	Size	Bowl guard		Pressure display					Options		→Page
		Plastic bowl guard	Metal bowl	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G 1/8	Adapter plate for EN pressure gauge G 1/4	Pressure sensor with display	Silencer	Flow direction from right to left	
<b>Individual devices</b>											
Electrical pressure regulators <b>MS-LRE</b>	4	-									5-54
	6	-	-	■	■	-	■	-	-	■	
	12	-									
Lubricator <b>MS-LOE</b>	4	■	■	-	-	-	-	-	-	■	6-2
	6	■	■	-	-	-	-	-	-	■	
	12	-	■	-	-	-	-	-	-	■	6-10
Manual on-off valves <b>MS-EM(1)</b>	4	-	-	■	■	■	■	■	■	■	7-2, 7-5
	6	-	-	■	■	-	■	■	■	■	
	12	-	-	■	■	-	■	-	■	■	7-40, 7-43
Electrical on-off valves <b>MS-EE</b>	4	-	-	■	■	■	■	■	■	■	7-2, 7-10
	6	-	-	■	■	-	■	■	■	■	
	12	-	-	■	■	-	■	-	■	■	7-40, 7-47
Pneumatic soft-start valves <b>MS-DL</b>	4	-	-	■	■	■	■	■	-	■	7-2, 7-18
	6	-	-	■	■	-	■	■	-	■	
	12	-	-	■	■	-	■	-	-	■	7-40, 7-51
Electrical soft-start valves <b>MS-DE</b>	4	-	-	■	■	■	■	■	-	■	7-2, 7-23
	6	-	-	■	■	-	■	■	-	■	
	12	-	-	■	■	-	■	-	-	■	7-40, 7-55
Soft start and exhaust valves <b>MS-SV</b>	4	-									7-30
	6	-	-	■	■	-	■	■	■	■	
	12	-									
Membrane air dryers <b>MS-LDM1</b>	4	-	■	-	-	-	-	-	-	■	8-2
	6	-	■	-	-	-	-	-	-	■	
	12	-									




# MS series service units

Product range overview



MS series service units

1

Type	Size	Pneumatic connection in housing	Connecting plate	Pressure regulation range [bar]				Supply voltage				
				0.3	0.3	0.5	0.5	24 V DC, connection pattern to EN 175301	24 V DC, connection pattern M12 to DESINA	110 V AC, connection pattern to EN 175301	230 V AC, connection pattern to EN 175301	
Code			AG...	D5	D6	D7	D8	V24	V24P	V110	V230	
<b>Individual devices</b>												
Branching modules <b>MS-FRM</b>		4	G1/8, G1/4	G1/8, G1/4, G3/8	-	-	-	-	-	-	-	-
		6	G1/4, G3/8, G1/2	G1/4, G3/8, G1/2, G3/4	-	-	-	-	-	-	-	-
		12	-	G1, G1 1/4, G1 1/2, G2	-	-	-	-	-	-	-	-
Distributor blocks <b>MS-FRM-FRZ</b>		4	G1/4	-	-	-	-	-	-	-	-	-
		6	G1/2	-	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-
Flow sensors <b>MS-SFE</b>		4	-	-	-	-	-	-	-	-	-	-
		6	G1/2	G1/2	-	-	-	-	-	-	-	-
		12	-	-	-	-	-	-	-	-	-	-

# MS series service units

Product range overview



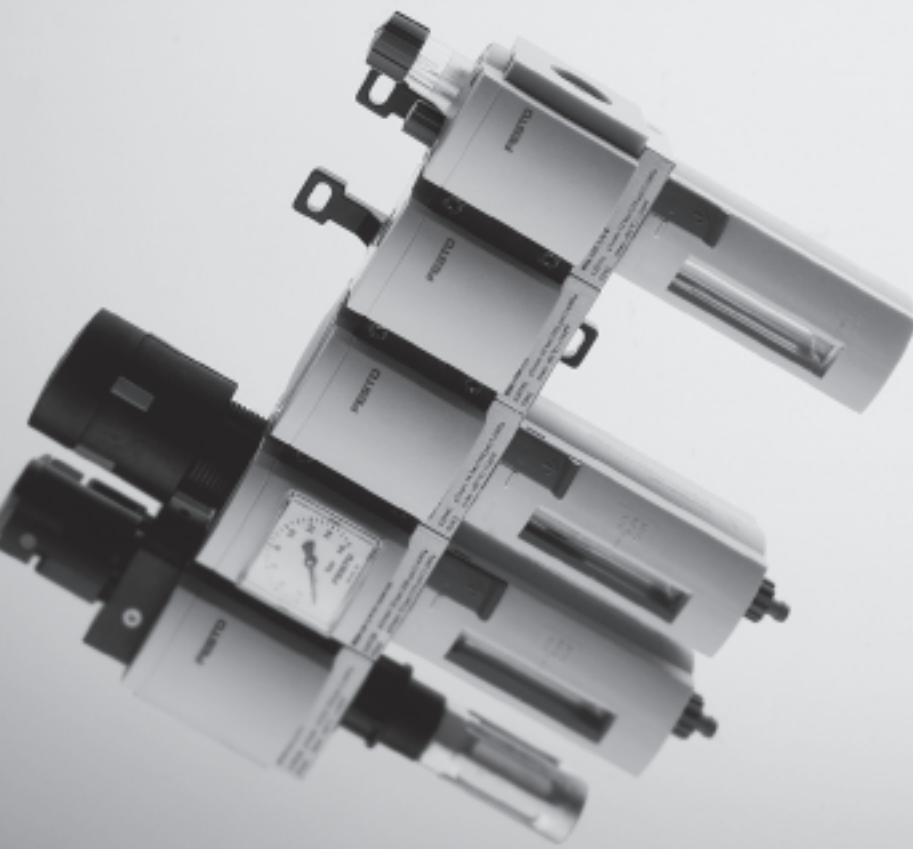
Type	Size	Pressure display					Switch output		Options		→Page
		Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter plate for EN pressure gauge G 1/8	Adapter plate for EN pressure gauge G 1/4	Pressure sensor with display	2x PNP	2x NPN	Silencer	Flow direction from right to left	
		VS	AG	A8	A4	AD...	P2	N2	S	Z	
<b>Individual devices</b>											
Branching modules <b>MS-FRM</b>	4	■	■	■	■	■	-	-	-	■	9-2
	6	■	■	-	■	■	-	-	-	■	
	12	■	-	-	-	-	-	-	-	-	9-16
Distributor blocks <b>MS-FRM-FRZ</b>	4	-	-	-	-	-	-	-	-	-	9-12
	6	-	-	-	-	-	-	-	-	-	
	12	-	-	-	-	-	-	-	-	-	
Flow sensors <b>MS-SFE</b>	4	-	-	-	-	-	-	-	-	-	10-2
	6	-	-	-	-	-	■	■	-	■ <sup>1)</sup>	
	12	-	-	-	-	-	-	-	-	-	

1) Can only be ordered using the configurator → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)





Wide range of configuration options  
→ [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

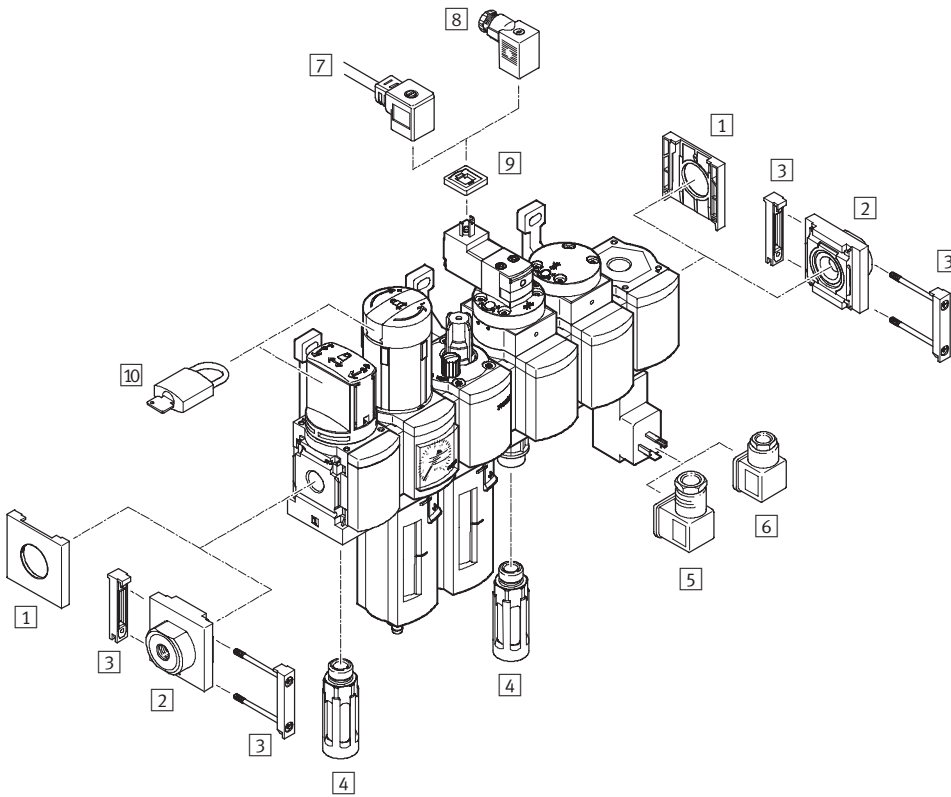



- MS4 – grid  
dimension 40 mm  
MS6 – grid  
dimension 62 mm
- Modular
- Easy to assemble
- Broad range of functions
- Compact with high flow rates
- Modern design
- Wide choice of variants
- Integrated safety functions

Specified types in accordance with  
ATEX directive for potentially  
explosive atmospheres  
→ [www.festo.com/en/ex](http://www.festo.com/en/ex)

# Service unit combinations MSB4/MSB6, MS series

Peripherals overview



-  - Note  
The choice of accessories depends on the selected service unit combination.

Range of accessories  
➔ Peripherals pages of the individual devices

Mounting attachments and accessories		➔ Page
1	Cover cap MS4/6-END	11-3
2	Connecting plate MS4/6-AG...	11-2
3	Module connector MS4/6-MV	11-7
4	Silencer U	11-10
5	Angled socket PEV-1/4-WD-LED	11-9
6	Plug socket MSSD-C-4P	11-9
7	Plug socket with cable KMEB	11-9
8	Plug socket MSSD-EB	11-9
9	Illuminating seal MEB-LD	11-9
10	Padlock LRVS-D	11-10
-	Mounting bracket (for service unit MSB-FRC) MS4/6-WP/WPB/WPM	11-5, 11-6

# Service unit combinations MSB4/MSB6, MS series

Type codes

MSB 6 - 1/2 : H7 N3 M2 - WP

**Series**

MSB	Service unit combination
-----	--------------------------

**Size**

4	Grid dimension 40 mm
6	Grid dimension 62 mm

**Pneumatic connection**

1/4	Thread G1/4
1/2	Thread G1/2

**Service unit combination**

**On-off valve** → 7-4

C3	MS...-EM1
----	-----------

**Filters** → 4-3

H1	MS...-LF-ERV
H2	MS...-LF-ERM
H3	MS...-LF-CRM
H4	MS...-LF-CRV
H7	MS...-LF-EUV
H8	MS...-LF-EUM

**Filter regulator** → 3-3

J1	MS...-LFR-D7-ERM-AS
J2	MS...-LFR-D7-ERV-AS
J3	MS...-LFR-D7-CRM-AS
J4	MS...-LFR-D7-CRV-AS

**Pressure regulator** → 5-4

N2	MS...-LR-D6-AS
N3	MS...-LR-D7-AS

**Soft-start valve** → 7-4

A1	MS...-DL
----	----------

**Lubricator** → 6-3

M1	MS...-LOE-R
M2	MS...-LOE-U

**On-off valve** → 7-4

D1	MS...-EE-V24
D7	MS...-EE-10V24

**Branching module** → 9-4

F3	MS...-FRM-Y
----	-------------

**Type of mounting**

WP	Mounting bracket
----	------------------

**Further variants can be ordered using the modular system**

Service unit combinations → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

- Connection size
- Connecting plates
- Service unit equipment
- Alternative flow direction

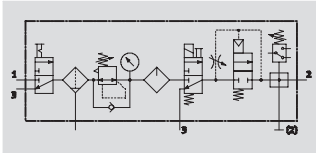
# Service unit combinations MSB4/MSB6, MS series

Technical data

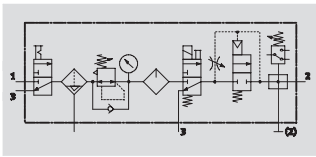


Function

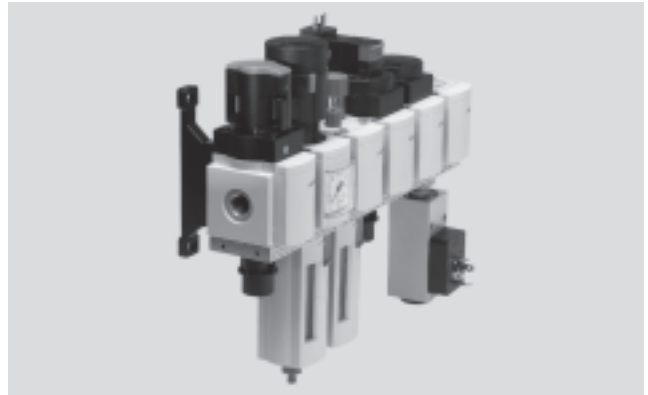
With condensate drain  
manual rotary



With condensate drain  
fully automatic



- - Flow rate  
550 ... 2,300 l/min
- - Temperature range  
-10 ... +60 °C
- - Pressure regulation  
range  
4 ... 12 bar



- For filtered and lubricated compressed air
- Supply pressure can be opened and closed
- Output pressure is infinitely adjustable within the pressure regulation range
- Gradual pressure build-up prevents sudden, unpredictable movements
- To shut-off and vent the following device or the system
- Electrical pressure monitoring with adjustable switching pressure

- On-off valve MS...-EM1 manually actuated
- Filter regulator MS...-LFR-D7
- Lubricator MS...-LOE-R
- On-off valve MS...-EE-10V24 or MS...-EE-V24 solenoid actuated
- Soft-start valve MS...-DL pneumatically actuated
- Branching module MS...-FRM-Y with pressure switch without display
- Mounting bracket MS...-WP

General technical data		
Size	MSB4	MSB6
Pneumatic connection 1, 2, 3	G $\frac{1}{4}$	G $\frac{1}{2}$
Regulating function	With primary pressure compensation	
	With return flow function	
	With secondary venting	
	Output pressure constant	
Type of mounting	Via accessories	
Assembly position	Vertical $\pm 5^\circ$	
Grade of filtration $[\mu\text{m}]$	5 (air purity class at the output 3.7.- to DIN ISO 8573-1)	
	40 (air purity class at the output 5.7.- to DIN ISO 8573-1)	
Bowl guard	Plastic bowl guard	
Condensate drain	Manual rotary	
	Fully automatic	
Actuator lock	Rotary knob with detent	
	Lockable with accessories	
Pressure regulation range [bar]	4 ... 9 (with on-off valve MS...-EE-10V24)	
	4 ... 12 (with on-off valve MS...-EE-V24)	
Pressure indicator	With pressure gauge	
Supply voltage [V DC]	24	

-  $\ddagger$  - Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard nominal flow rate $q_{nN}$ [l/min]			
Size		MSB4	MSB6
Grade of filtration	5 $\mu\text{m}$	550	2,100
	40 $\mu\text{m}$	600	2,300

# Service unit combinations MSB4/MSB6, MS series

Technical data

Operating and environmental conditions									
	Pressure regulation range 4 ... 9 bar				Pressure regulation range 4 ... 12 bar				
Condensate drain	Manual rotary		Fully automatic		Manual rotary		Fully automatic		
Size	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	MSB4	MSB6	
Supply pressure [bar]	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 10	4.5 ... 14	4.5 ... 18	4.5 ... 12	4.5 ... 12	
Operating medium	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm								
Ambient temperature [°C]	-10 ... +50		+5 ... +50		-10 ... +60			+5 ... +60	
Temperature of medium [°C]	-10 ... +50		+5 ... +50		-10 ... +60			+5 ... +60	
Storage temperature [°C]	-10 ... +60		-10 ... +60		-10 ... +60			-10 ... +60	
Corrosion resistance	CRC <sup>1)</sup>		2						

1) Corrosion resistance class 2 according to Festo standard 940 070  
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

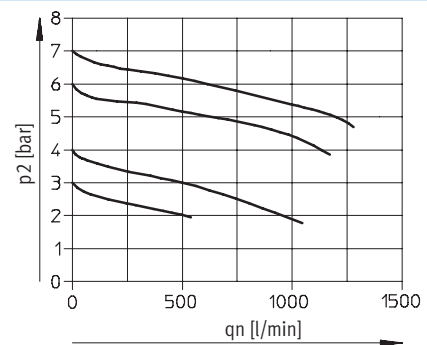
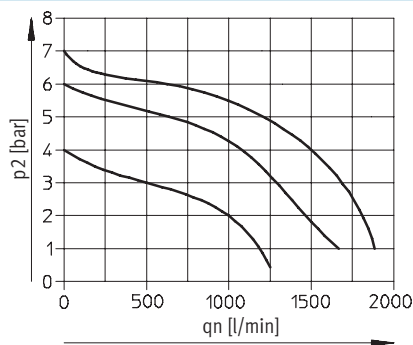
Weights [g]		
Size	MSB4	MSB6
Service unit combination	2,200	4,000
Mounting bracket	40	76

Note  
 Materials → Technical data of the individual devices

## Standard flow rate qn as a function of output pressure p2

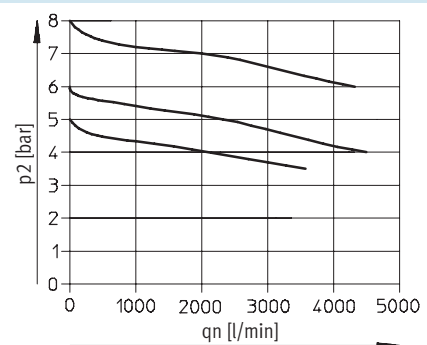
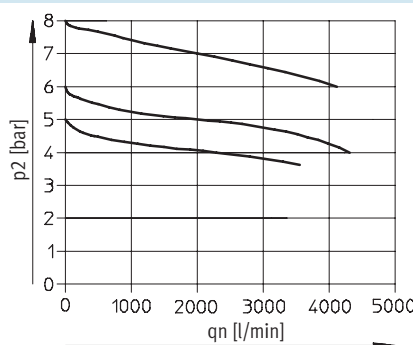
Pressure regulation range 4 ... 9 bar / 4 ... 12 bar  
 MSB4-1/4

Primary pressure p1 = 10 bar



## MSB6-1/2

Primary pressure p1 = 10 bar



# Service unit combinations MSB4/MSB6, MS series

Technical data



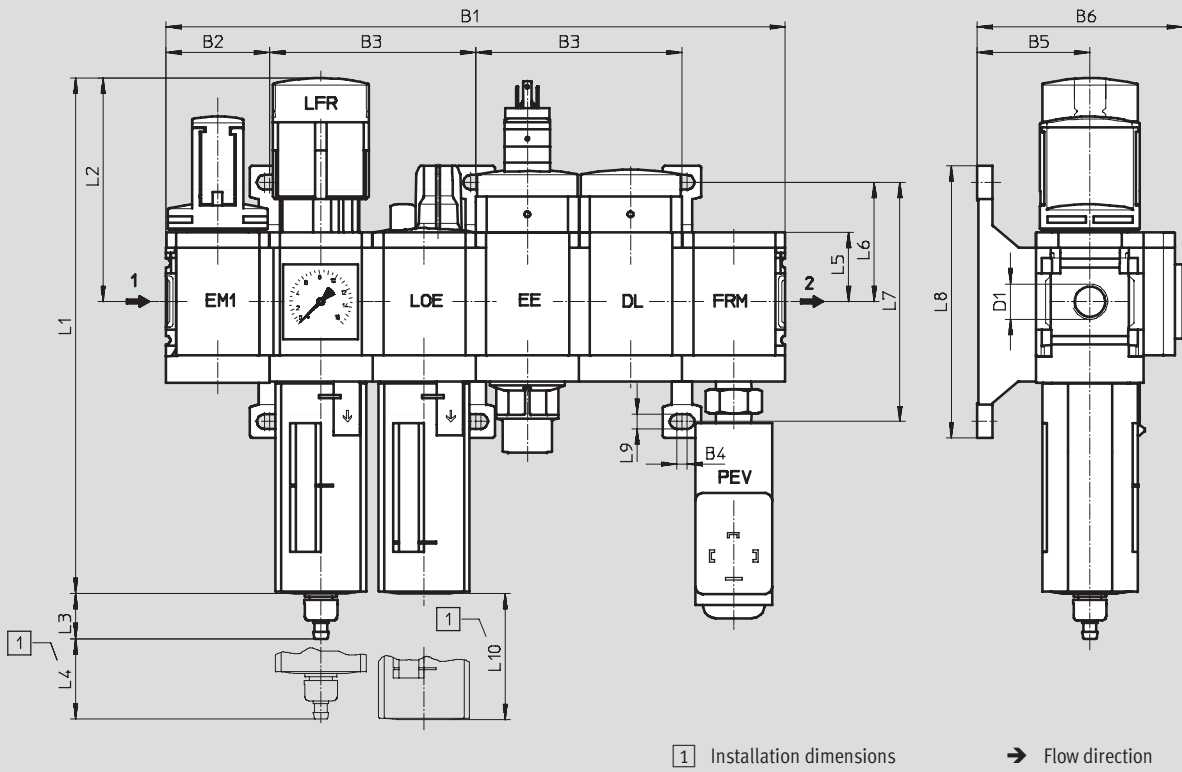
MS series service units  
Service units

2

## Dimensions

Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

With pressure gauge, display unit [bar]



Type	B1	B2	B3	B4	B5	B6	D1	L1	L2
MSB4	241.2	40.2	80.4	4	44	80	G $\frac{1}{4}$	201	87
MSB6	372	62	124	4.5	54	100	G $\frac{1}{2}$	285	134.5

Type	L3 Condensate drain		L4	L5	L6	L7	L8	L9	L10
	manual rotary	fully auto- matic							
MSB4	17.7	20.4	25	27	46.5	93.2	106	5.6	80
MSB6	15.8	18.5	68	39	71	142	158	6.6	130

— | — Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

## Service unit combinations MSB4/MSB6, MS series

FESTO

Technical data

Ordering data						
Pressure regulation range 4 ... 9 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542 624	MSB4- $\frac{1}{4}$ :C3J3M1D7A1F3-WP	542 619	MSB4- $\frac{1}{4}$ :C3J1M1D7A1F3-WP
	fully automatic	G $\frac{1}{4}$	542 626	MSB4- $\frac{1}{4}$ :C3J4M1D7A1F3-WP	542 622	MSB4- $\frac{1}{4}$ :C3J2M1D7A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542 640	MSB6- $\frac{1}{2}$ :C3J3M1D7A1F3-WP	542 636	MSB6- $\frac{1}{2}$ :C3J1M1D7A1F3-WP
	fully automatic	G $\frac{1}{2}$	542 642	MSB6- $\frac{1}{2}$ :C3J4M1D7A1F3-WP	542 638	MSB6- $\frac{1}{2}$ :C3J2M1D7A1F3-WP

Ordering data						
Pressure regulation range 4 ... 12 bar						
Size	Condensate drain	Connection	Grade of filtration 5 µm		Grade of filtration 40 µm	
			Part No.	Type	Part No.	Type
Plastic bowl guard						
MSB4	manual rotary	G $\frac{1}{4}$	542 309	MSB4- $\frac{1}{4}$ :C3J3M1D1A1F3-WP	542 297	MSB4- $\frac{1}{4}$ :C3J1M1D1A1F3-WP
	fully automatic	G $\frac{1}{4}$	542 315	MSB4- $\frac{1}{4}$ :C3J4M1D1A1F3-WP	542 303	MSB4- $\frac{1}{4}$ :C3J2M1D1A1F3-WP
MSB6	manual rotary	G $\frac{1}{2}$	542 285	MSB6- $\frac{1}{2}$ :C3J3M1D1A1F3-WP	542 273	MSB6- $\frac{1}{2}$ :C3J1M1D1A1F3-WP
	fully automatic	G $\frac{1}{2}$	542 291	MSB6- $\frac{1}{2}$ :C3J4M1D1A1F3-WP	542 279	MSB6- $\frac{1}{2}$ :C3J2M1D1A1F3-WP







# MS series service units

Accessories

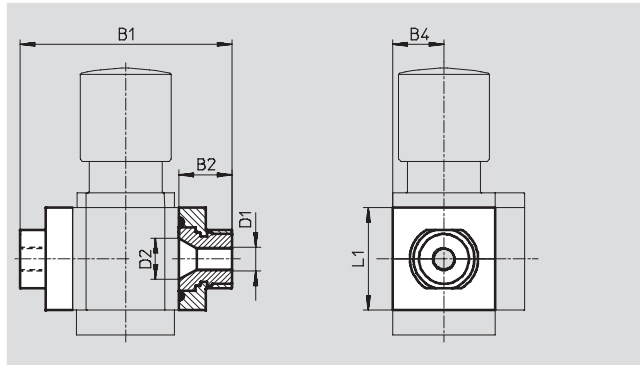


## Connecting plate MS4/6-AG...

(order code: AG...)

- Adapter for pneumatic connection
- MS6-AGE for implementing threaded connection G $\frac{3}{4}$

Material:  
Aluminium



Dimensions and ordering data									
Size	B1	B2	B4	D1	D2	L1	Weight [g]	Part No.	Type
MS4	83.5	21.5	21	G $\frac{1}{8}$	16.8	42	128	526 068	MS4-AGA
				G $\frac{1}{4}$				526 069	MS4-AGB
				G $\frac{3}{8}$				526 070	MS4-AGC
MS6	115	26.5	31	G $\frac{1}{4}$	24	62	300	526 080	MS6-AGB
				G $\frac{3}{8}$				526 081	MS6-AGC
				G $\frac{1}{2}$				526 082	MS6-AGD
				G $\frac{3}{4}$				526 083	MS6-AGE

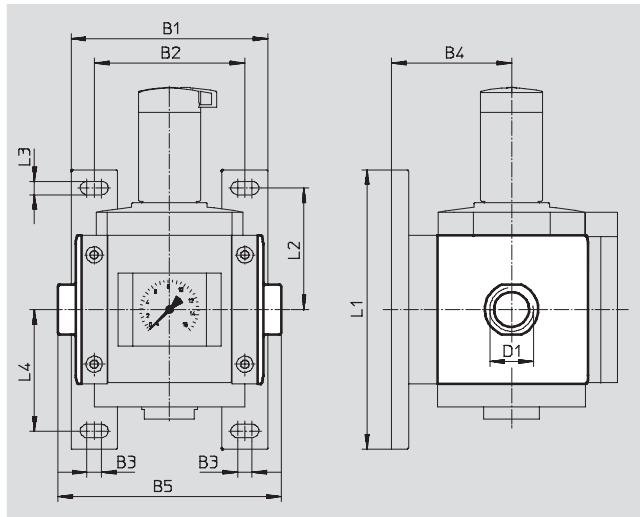
-||- Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

## Connecting plate MS12-AG...

(order code: AG...)

- Adapter for pneumatic connection

Material:  
Die-cast aluminium  
Free of copper and PTFE



Dimensions and ordering data													
Size	B1	B2	B3	B4	B5	D1	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS12	162	124	12	99	184	G1	230	100	11	100	1,300	537 135	MS12-AGF
					184	G $\frac{1}{4}$						537 136	MS12-AGG
					184	G $\frac{1}{2}$						537 137	MS12-AGH
					196	G2						537 138	MS12-AGI

-||- Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

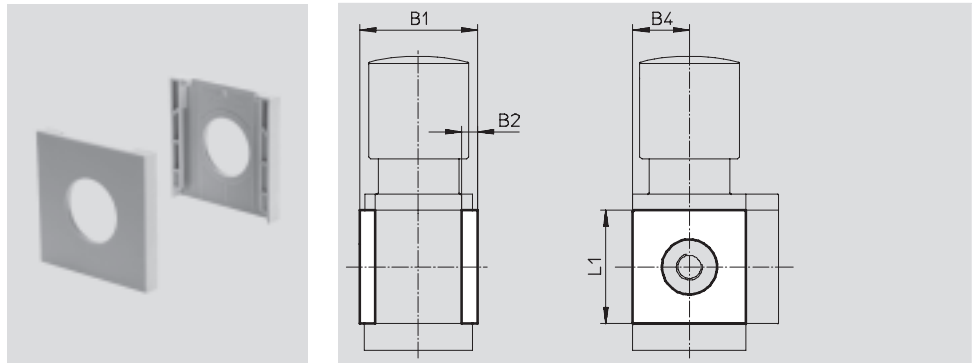
## MS series service units

Accessories

### Cover cap MS4/6-END

- Can be used to cover the body sides of the first and last module if connecting plates are not used.

Material:  
Reinforced polyamide  
Free of copper and PTFE



Dimensions and ordering data						
Size	B1	B2	B4	L1	Part No.	Type
MS4	43.6	6	21	42	538 779	MS4-END
MS6	67	8	31	62	538 780	MS6-END

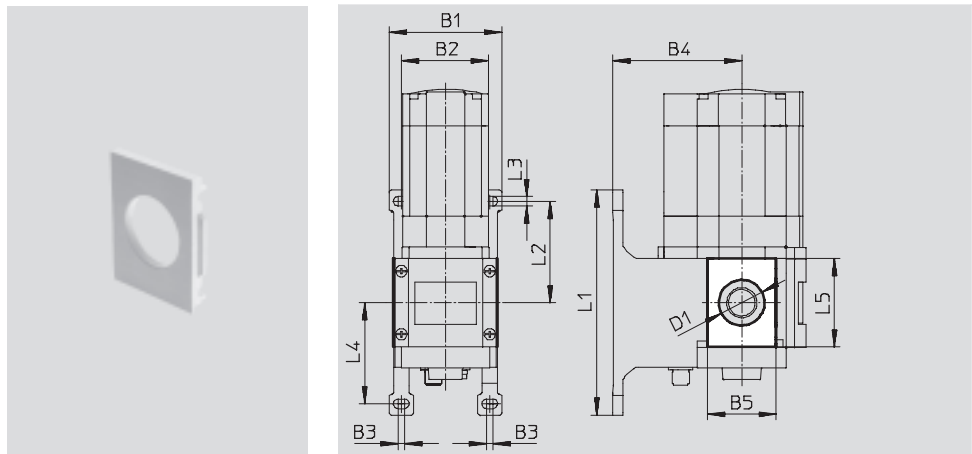
• Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.


### Mounting plate MS4/6-AEND

(order code: WBE; scope of delivery includes wall mounting plate MS6-WPB)

- In combination with wall mounting plate MS-WP or MS-WPB for mounting an individual unit on a wall with direct thread

Material:  
Reinforced polyamide  
Conforms to RoHS  
Free of copper and PTFE



Dimensions and ordering data																
Size	B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC <sup>1)</sup>	Weight [g]	Part No.	Type
				WP	WPB											
MS4	55.2	40.2	4	44	66	30.4	20.3	106	46.5	5.6	46.7	42	2	4	542 966	MS4-AEND 
MS6	79	62	4.5	54	90.5	48.4	32	158	71	6.6	71	62	2	17	535 408	MS6-AEND

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# MS series service units

Accessories



## Wall mounting plate MS4/6-WP...

Clearances for mounting service unit combinations

1 service unit

MS4: with WP/WPB/WPM-D:  
40.2 mm (20.1 mm at  
MS4-FRM-FRZ)

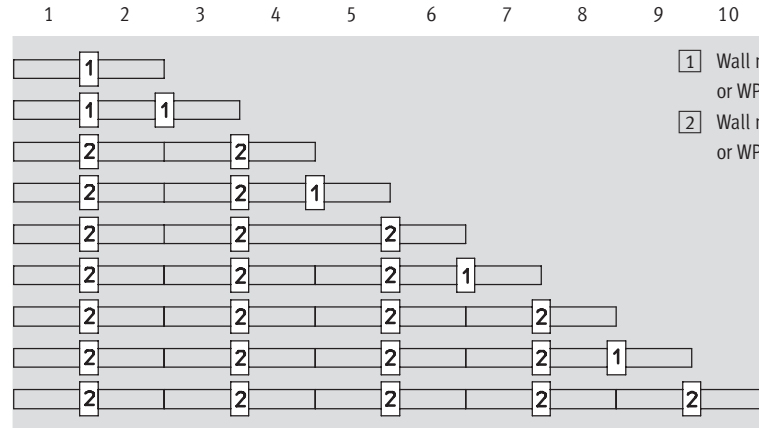
MS6: with WP, WPB: 62 mm (31 mm  
at MS4-FRM-FRZ)  
with WPM-D: 69 mm  
(38 mm at MS6-FRM-FRZ)

2 service units

MS4: with WP/WPB/WPM-2D:  
80.4 mm (40.2 mm at  
MS4-FRM-FRZ)

MS6: with WP, WPB: 124 mm  
(62 mm at MS6-FRM-FRZ)  
with WPM-2D: 138 mm  
(76 mm at MS6-FRM-FRZ)

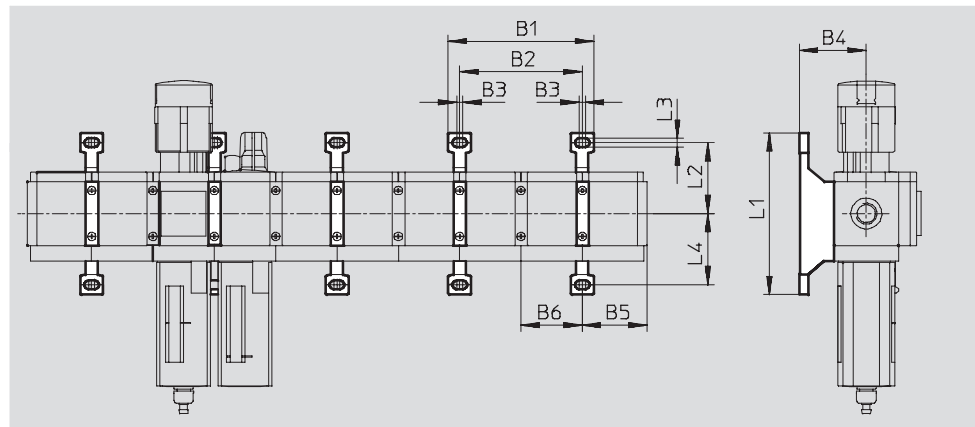
Number of units



## Mounting dimensions

- Note

The distributor block MS4/6-FRM-FRZ has a half grid dimension width.



Type	2 service units with grid dimension		1 service unit with grid dimension and 1 distributor block MS-FRM-FRZ		2 distributor blocks MS-FRM-FRZ		B3	B4	Service unit with grid dimension		Distributor block MS-FRM-FRZ		L1	L2	L3	L4			
	B1	B2	B1	B2	B1	B2			B5 <sup>1)</sup>	B6	B5 <sup>1)</sup>	B6							
MS4-WP	95.4	80.4	75.3	60.3	55.2	40.2	4	44	41.9	40.2	21.8	20.1	106	46.5	5.6	46.7			
MS4-WPB																	92.8	34.8	45.2
MS4-WPM-...D																			
MS6-WP	141	124	110	93	79	62	4.5	54.1	64.5	62	33.5	31	158	71	6.6	71			
MS6-WPB								90.5											
MS6-WPM-...D								54.1									68	69	37

1) With accessory cover cap MS-END

# MS series service units

Accessories



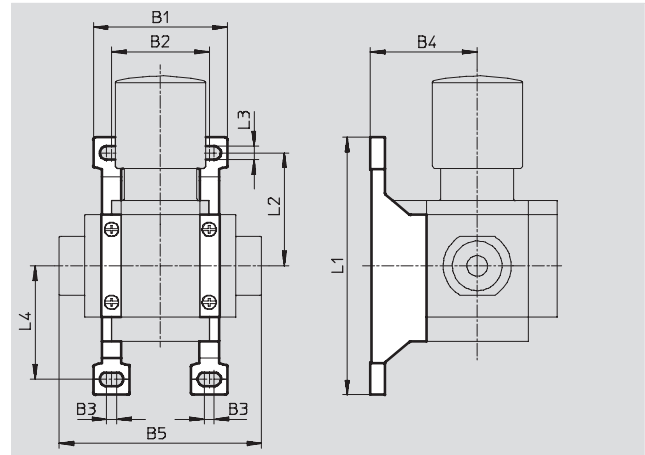
## Wall mounting plate MS4/6-WP

(order code: WP)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND for mounting an individual unit with direct thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:

Die-cast aluminium



Dimensions and ordering data											
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No. Type
MS4	55.2	40.2	4	44	83.4	106	46.5	5.6	46.7	39	532 184 MS4-WP
MS6	79	62	4.5	54.1	115	158	71	6.6	71	76	532 195 MS6-WP

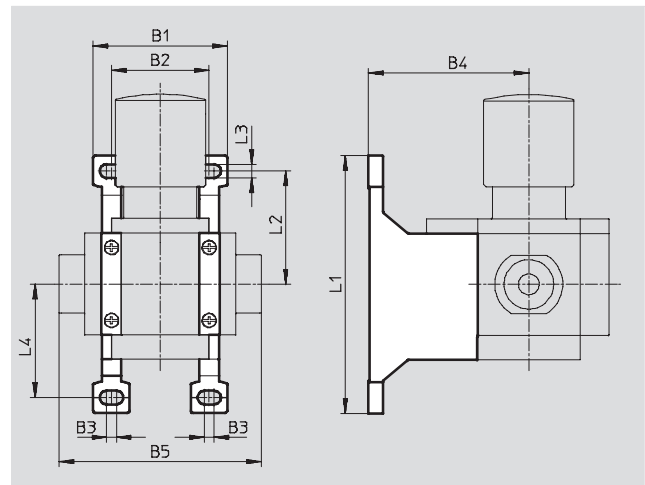
## Wall mounting plate MS4/6-WPB

(order code: WPB)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:

Die-cast aluminium



Dimensions and ordering data											
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [g]	Part No. Type
MS4	55.2	40.2	4	66	83.4	106	46.5	5.6	46.7	55	526 063 MS4-WPB
MS6	79	62	4.5	90.5	115	158	71	6.6	71	115	526 074 MS6-WPB

# MS series service units

Accessories



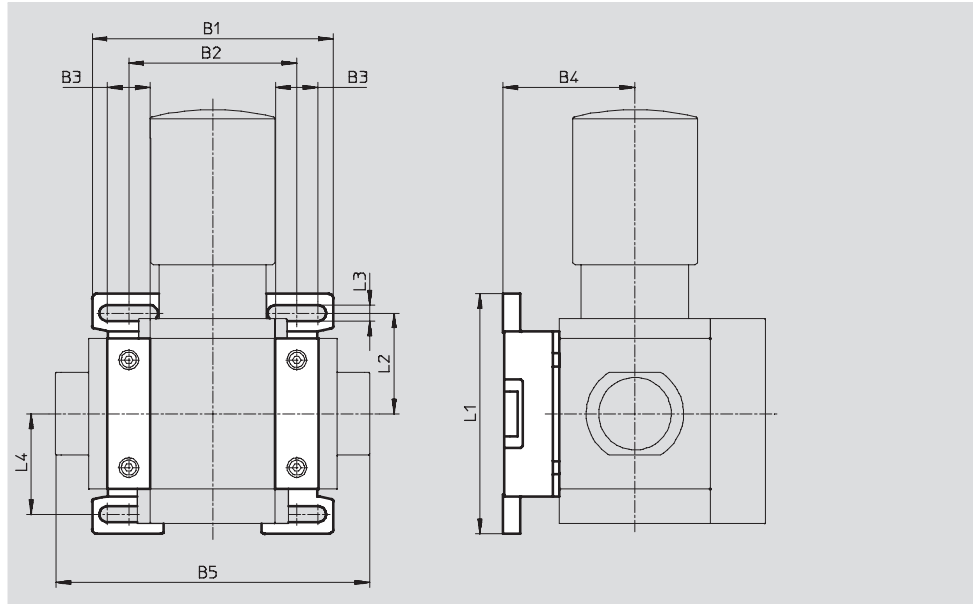
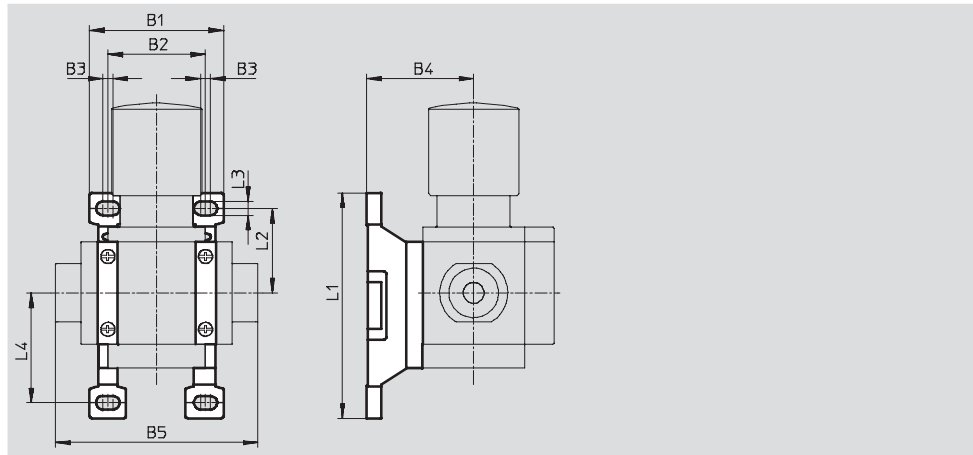
## Wall mounting plate MS4/6-WPM

(order code: WPM)

- For connecting the modules for wall mounting
- In combination with a connecting plate MS4/6-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:  
Die-cast aluminium



Dimensions and ordering data													
Size	B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [g]	Part No.	Type
MS4	55.2	40.2	4	44	83.4	92.8	34.8	5.6	45.2	40.2	45	526 060	MS4-WPM-D
	95.4	80.4			123.4					80.4	55	526 061	MS4-WPM-2D
MS6	99	69	17.5	54.1	129	98.6	41.3	6.6	41.3	69	144	526 073	MS6-WPM-D
	168	138			198					138	154	532 186	MS6-WPM-2D

# MS series service units

Accessories

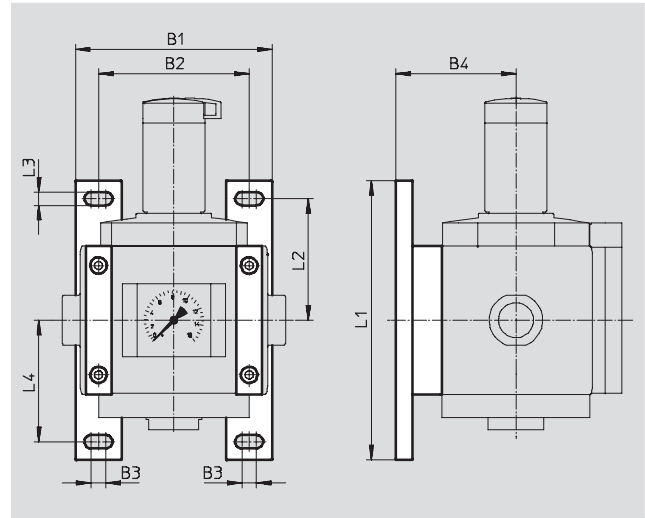


## Wall mounting plate MS12-WP

(order code: WP)

- For connecting the modules for wall mounting
- In combination with a connecting plate for mounting an individual unit on a wall

Material:  
Die-cast aluminium  
Free of copper and PTFE



Dimensions and ordering data											
Size	B1	B2	B3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Type
MS12	162	124	12	99	230	100	11	100	700	537 133	MS12-WP

## Module connector MS...-MV

- For connecting modules

Material:  
MS4/6: Stainless steel/polyacetate

MS12: Die-cast aluminium,  
Free of copper and PTFE



MS4/6



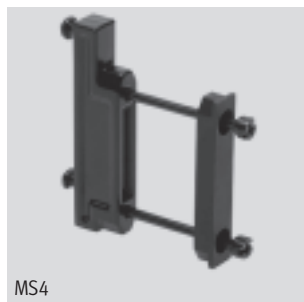
MS12

Ordering data			
Size	Weight [g]	Part No.	Type
MS4	36	532 798	MS4-MV
MS6	54	532 799	MS6-MV
MS12	500	537 134	MS12-MV

## Module connector MS4/6-MVM

- For installation of modules with regulating knob pointing downwards

Material:  
Die-cast aluminium



MS4



MS6

Ordering data		
Size	Part No.	Type
MS4	532 800	MS4-MVM
MS6	532 801	MS6-MVM




## MS series service units

Accessories

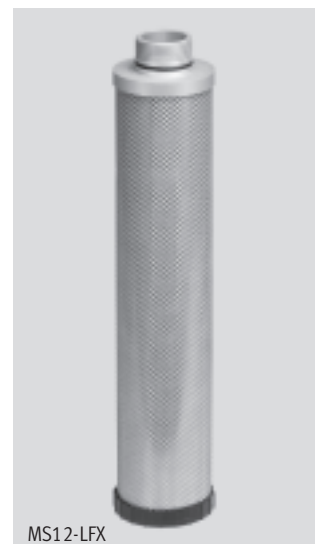
**FESTO**

### Filter cartridge MS4/6-LF...



Ordering data				
Size		Grade of filtration [µm]	Part No.	Type
MS4	Micro-filter cartridge	0.01	162 674	MS4/D-MINI-LFM-A
	Fine-filter cartridge	1	162 677	MS4/D-MINI-LFM-B
	Filter cartridge	5	534 501	MS4-LFP-C
	Filter cartridge	40	534 502	MS4-LFP-E
	Active carbon filter cartridge	–	532 912	MS4/D-MINI-LFX
MS6	Micro-filter cartridge	0.01	532 909	MS6-LFM-A
	Micro-filter cartridge (for variant HF, high flow rate)	0.01	552 093	MS6-LFM-A-HF 
	Fine-filter cartridge	1	532 910	MS6-LFM-B
	Fine-filter cartridge (for variant HF, high flow rate)	1	552 092	MS6-LFM-B-HF 
	Filter cartridge	5	534 499	MS6-LFP-C
	Filter cartridge	40	534 500	MS6-LFP-E
	Active carbon filter cartridge	–	532 911	MS6-LFX
	Active carbon filter cartridge (for variant HF, high flow rate)	–	552 094	MS6-LFX-HF 

### Filter cartridge MS12-LF...




Ordering data				
Size		Grade of filtration [µm]	Part No.	Type
MS12	Micro-filter cartridge	0.01	537 146	MS12-LFM-A
	Fine-filter cartridge	1	537 145	MS12-LFM-B
	Filter cartridge	5	537 143	MS12-LFP-C
	Filter cartridge	40	537 144	MS12-LFP-E
	Active carbon filter cartridge	–	537 147	MS12-LFX




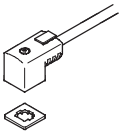
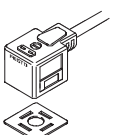
# MS series service units


Accessories


FESTO

Ordering data – Angled socket PEV					Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Operating voltage range	Electrical connection	Switching status display	Part No.	Type
	for PEV-1/4-...-OD	15 ... 30 V DC	4-pin	Yellow LED	164 274	PEV-1/4-WD-LED-24
		≤ 230 V AC ≤ 180 V DC	4-pin	Yellow LED	164 275	PEV-1/4-WD-LED-230

Ordering data – Plug socket MSSD					Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for PEV-1/4-...-OD	≤ 250 V AC/DC	3-pin	Clamping screws	171 157	MSSD-C-4P
	for MS4/6-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	151 687	MSSD-EB
			4-pin	Insulation displacement technology	192 745	MSSD-EB-S-M14
	for MS12-EE/DE	≤ 250 V AC/DC	3-pin	Clamping screws	34 583	MSSD-C
4-pin			Insulation displacement technology	192 748	MSSD-C-S-M16	

Ordering data – Plug socket with cable KMEB/KMC						Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Operating voltage range	Electrical connection	Switching status display	Cable length [m]	Part No.	Type
	for MS4/6-EE/DE	24 V DC	2-pin	LED	2.5	547 268	KMEB-3-24-2,5-LED
				–	5	547 269	KMEB-3-24-5-LED
			–	2.5	547 270	KMEB-3-24-2,5	
				5	547 271	KMEB-3-24-5	
		3-pin	LED	2.5	151 688	KMEB-1-24-2,5-LED	
				5	151 689	KMEB-1-24-5-LED	
		230 V AC	3-pin	–	2.5	193 457	KMEB-1-24-10-LED
					5	151 690	KMEB-1-230AC-2,5
	for MS12-EE/DE	24 V DC	3-pin	LED	2.5	151 691	KMEB-1-230AC-5
					5	30 931	KMC-1-24DC-2,5-LED
					10	30 933	KMC-1-24DC-5-LED
					193 459	KMC-1-24-10-LED	
		230 V AC	3-pin	–	2.5	30 932	KMC-1-230AC-2,5
					5	30 934	KMC-1-230AC-5

Ordering data – Illuminating seal MEB-LD/MC-LD				Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Operating voltage range	Part No.	Type	
	for plug socket with cable KMEB and plug socket MSSD-EB	12 ... 24 V DC	151 717	MEB-LD-12-24DC	
		230 V DC/AC ±10%	151 718	MEB-LD-230AC	
	for plug socket with cable KMC and plug socket MSSD-C	12 ... 24 V DC	19 145	MC-LD-12-24DC	
		230 V DC/AC ±10%	19 146	MC-LD-230AC	


Ordering data – Locking clip CPV18-HV				Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Part No.	Type	PU <sup>1)</sup>	
	for MS4/6-EE/DE-...-V24	530 056	CPV18-HV	10	


1) Packaging unit quantity


# MS series service units

Accessories

FESTO

Ordering data – Silencer U			Technical data → <a href="http://www.festo.com">www.festo.com</a>	
	Description	Pneumatic connection	Part No.	Type
	for MS4-EM1/EE	G1/4	<b>6 842</b>	<b>U-1/4-B</b>
	for MS6-EM1/EE	G1/2	<b>6 844</b>	<b>U-1/2-B</b>
	for MS12-EM/EE	G1	<b>151 990</b>	<b>U-1-B</b>

Ordering data – Double nipple ESK					
	Description	Pneumatic connection		Part No.	Type
	Adjustable for angular compensation • For retro-fitting pressure switch PEV or pressure sensor SDE1 to branching module MS-FRM	R1/8	R1/4	<b>534 151</b>	<b>ESK-1/8-1/4</b>
		R1/4	R1/4	<b>151 521</b>	<b>ESK-1/4-1/4</b>
			R1/2	<b>534 153</b>	<b>ESK-1/4-1/2</b>

Ordering data – Padlock LRVS-D				
	Description	Weight [g]	Part No.	Type
	for filter or pressure regulators	120	<b>193 786</b>	<b>LRVS-D</b>

Ordering data – Special oil OFSW				
	Description	Scope of delivery	Part No.	Type
	for lubricators	1 litre	<b>152 811</b>	<b>OFSW-32</b>